

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Fourth Semester MA Degree Examination, March/April 2020
MECO4E04 – Contributions by Nobel Laureates
(2018 Admission onwards)

Time: 3 hours

Max. Weightage : 36

PART A**Answer All Questions. Each Bunch of Four Questions Carries One Weightage****A. Multiple Choices**

1. Who among the following won Noble prize for methods of analyzing economic time series with time-varying volatility (ARCH)
 - a) Vernon L. Smith
 - b) Robert F. Engle
 - c) Olive Granger
 - d) Finn E. Kydland
2. The first non-economist to win the Nobel prize is.....
 - a) Herbert A. Simon
 - b) Simon Kuznets
 - c) Lawrence Klein
 - d) Richard Stone
3. Who among the following won Noble prize for his analysis of behavioural economics?
 - a) Oliver Hart
 - b) Jean Tirole
 - c) Richard Thaler
 - d) Peter A. Diamond
4. The contract theory is associated with
 - a) William Nordhaus
 - b) Paul Romer
 - c) Paul A. Samuelson
 - d) Oliver Hart
5. Who among the following Noble Prize winners is a Swedish economist?
 - a) Gunnar Myrdal
 - b) John Hicks
 - c) George Stigler
 - d) Paul A. Samuelson
6. Abhijit Banerjee was awarded the Nobel Prize for his contribution to
 - a) Welfare Economics
 - b) Alleviation of global poverty
 - c) Analysis of consumption, poverty, and welfare
 - d) Analysis of Asset price
7. As of 2018, the institution with the most affiliated laureates in economic sciences is
 - a) Harvard University
 - b) Columbia University
 - c) University of Chicago
 - d) Princeton University
8. The first women awarded Nobel prize in Economics
 - a) Esther Duflo
 - b) Mrs. John Robinson
 - c) Ursula Hicks
 - d) Elinor Ostrom

B. Fill in the Blanks

9. The Laureates in the Nobel Memorial Prize in Economics are selected by

10. The first Nobel prize was awarded in 1969 to Ragnar Frisch and

11. won Nobel prize for the development of the input-output method and for its application to important economic problems.

12. The first black person to win a Nobel Memorial Prize in Economic Sciences is.....

(12 x ¼ = 3 weightage)

PART B (Very Short Answer Questions)

Answer Any Five Questions. Each Questions Carries Weightage of 1

13. Tobin's concept of Transmission mechanism.

14. Lucas's rational expectation.

15. Time Consistency of Economic Policy by Prescott.

16. What are the assumptions of Solow's growth theory?

17. Modern portfolio theory of Harry Markowitz.

18. Granger's concept of co-integration.

19. Why Angus Deaton was awarded Nobel Prize?

(5 x 1 = 5 weightage)

PART C (Short Answer Questions)

Answer Any Eight Questions. Each Questions Carries Weightage of 2

20. Explain Ragnar Frisch's dynamic model for the analysis of economic process.

21. Examine Coase theorem to ensure socially optimum solution.

22. Discuss Arrow's impossibility theorem.

23. Explain John F. Nash analysis of equilibria in the theory of non-cooperative game.

24. Outline Amartya Sen's social choice theory.

25. Discuss Hicks analysis of general equilibrium.

26. States the new trade theory of Paul Krugman.

27. Analyze the economic governance given by Oliver Williamson.

28. Discuss the market with asymmetric information by George Akerlof.

29. Explain Milton Friedman's contributions of monetary theory.

30. Narrate life-cycle hypothesis of Franco Modigliani.

31. Why Thomas Sargent and Christopher Sims were awarded Nobel Prize?

(8 x 2 = 16 weightage)

PART D (Essay Questions)

Answer Any Three Questions. Each Questions Carries Weightage of 4

32. Narrate Simon Kuznet's contributions to economic growth and development theory.

33. Discuss Bertil Ohlin's contributions to international trade theory.

34. Explain Edmund Phelps analysis of inter temporal trade off in macroeconomic Policy.

35. Briefly discuss Robert Mundel's contributions to international economics.

36. Explain the theory market with search friction by Diamond, Mortensen and Pissarid

(3 x 4 = 12 weightage)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Fourth Semester MA Degree Examination, March/April 2020
MECO4E01 – Advanced Econometrics
(2018 Admission onwards)

Time: 3 hours

Max. Weightage : 36

I. Answer all the questions. Each bunch of four questions carries one weightage

A. Multiple choices

1. In the context of simultaneous equations modeling, which of the following statements is true concerning an endogenous variable?
 - a) The values of endogenous variables are determined outside the system
 - b) There can be fewer equations in the system than there are endogenous variables
 - c) Reduced form equations will not contain any endogenous variables on the RHS
 - d) Reduced form equations will contain only endogenous variables on the RHS
2. Consider the following system of equations (with time subscripts suppressed and using standard notation)

$$Y_1 = \alpha_0 + \alpha_1 Y_2 + \alpha_2 Y_3 + \alpha_4 X_1 + \alpha_5 X_2 + u_1$$

$$Y_2 = \beta_0 + \beta_1 Y_3 + \beta_2 Y_1 + \beta_3 X_2 + u_2$$

$$Y_3 = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + u_3$$

According to the order condition, the first equation is

- a) Unidentified
 - b) Just identified
 - c) Over-identified
 - d) It is not possible to tell
3. The order condition is
 - a) necessary and sufficient condition for identification
 - b) A necessary but not sufficient condition for identification
 - c) A sufficient but not necessary condition for identification
 - d) A condition that is neither necessary nor sufficient for identification
 4. If $\{Y_t\}$ follows an IMA(1,1) process, then $\{\nabla Y_t\}$ follows a(n) process.
 - (a) ARI(1,1)
 - (b) MA(1)
 - (c) IMA(2,1)
 - (d) ARIMA(0,1,2)
 5. Which of the following statements is false concerning the linear probability model?
 - a) There is nothing in the model to ensure that the estimated probabilities lie between zero and one
 - b) Even if the probabilities are truncated at zero and one, there will probably be many observations for which the probability is either exactly zero or exactly one

- c) The error terms will be heteroscedastic and not normally distributed
- d) The model is much harder to estimate than a standard regression model with continuous dependent variable
6. Which of the following is correct concerning logit and probit models?
- a) They use a different method of transforming the model so that the probabilities between zero and one
- b) The logit model can result in too many observations falling at exactly zero or exactly one
- c) For the logit model, the marginal effect of a change in one of the explanatory variables is simply the estimate of the parameter attached to that variable, whereas this is not the case for the probit model
- d) The probit model is based on a cumulative logistic function
7. A white noise process will have
- (a) A zero mean (b) A constant variance
- (c) Auto covariances that are constant (d) It must have a constant probability distribution
8. For an autoregressive process to be considered stationary
- a) The roots of the characteristic equation must all lie inside the unit circle
- b) The roots of the characteristic equation must all lie on the unit circle
- c) The roots of the characteristic equation must all lie outside the unit circle
- d) The roots of the characteristic equation must all be less than one in absolute value

B. Fill in the blanks

9. The first-difference transformation to eliminate autocorrelation assumes that the coefficient of autocorrelation ρ is-----
10. In the AR(1) scheme, a test of the hypothesis that $\rho = 1$ can be made by the----- statistic.
11. The augmented Dickey-Fuller unit root test can be used to test for-----
12. -----is the test for bivariate cointegration.

C. State True or False

13. All econometric models are essentially dynamic.
14. If the Koyck and adaptive expectations models are estimated by OLS, the estimators will be biased but consistent.
15. In the partial adjustment model, OLS estimators are biased in finite samples.
16. The Durbin h test is valid in both large and small samples.

(16x ¼ = 4 weightage)

II. Answer any ten questions. Not exceeding one page each

Write a note on the following

17. Koyck Approach to distributed lag models
18. Endogenous variables
19. Error Correction Mechanism
20. ARIMA
21. Deterministic trend stationarity
22. Reduced form model
23. Simultaneity bias
24. Box Jenkins Methodology
25. Indirect least Square method
26. ARDL
27. Augmented Dickey fuller test
28. Akaike's (1974) information criterion
29. Exponential smoothing
30. Hausman test for exogeneity

(10 x 2 = 20 weightage)

III. Answer Any three questions. Not exceeding three pages each

31. A researcher wants to test the order of integration of some time-series data. He decides to use the DF test. He estimates a regression of the form $Y_t = \mu + \psi Y_{t-1} + U_t$ and obtains the estimate $\hat{\psi} = -0.02$ with standard error = 0.31.
 - (a) What are the null and alternative hypotheses for this test?
 - (b) Given the data, and a critical value of -2.88 , perform the test.
 - (c) What is the conclusion from this test and what should be the next step?
 - (d) Why is it not valid to compare the estimated test statistic with the corresponding critical value from a t-distribution, even though the test statistic takes the form of the usual t-ratio?
32. Explain, using an example if you consider it appropriate, what you understand by the equivalent terms 'recursive equations' and 'triangular system'. Can a triangular system be validly estimated using OLS? Explain your answer.

33. Consider the following MA(2) process

$$Y_t = u_t + \theta_1 u_{t-1} + \theta_2 u_{t-2}$$

Where u_t is a zero mean white noise process with variance σ^2 .

- Calculate the mean and variance of y_t
- Derive the autocorrelation function for this process (i.e. express the autocorrelations, τ_1, τ_2, \dots as functions of the parameters θ_1 and θ_2) (3) If $\theta_1 = -0.5$ and $\theta_2 = 0.25$, sketch the acf of y_t .

34. Consider the following simultaneous equations system

$$y_{1t} = \alpha_0 + \alpha_1 y_{2t} + \alpha_2 y_{3t} + \alpha_3 X_{1t} + \alpha_4 X_{2t} + u_{1t} \dots \dots \dots (1)$$

$$y_{2t} = \beta_0 + \beta_1 y_{3t} + \beta_2 X_{1t} + \beta_3 X_{3t} + u_{2t} \dots \dots \dots (2)$$

$$y_{3t} = \gamma_0 + \gamma_1 y_{1t} + \gamma_2 X_{2t} + \gamma_3 X_{3t} + u_{3t} \dots \dots \dots (3)$$

- Derive the reduced form equations corresponding to (1)–(3).
- What do you understand by the term ‘identification’? Describe a rule for determining whether a system of equations is identified. Apply this rule to (1)–(3). Does this rule guarantee that estimates of the structural parameters can be obtained?
- Which would you consider the more serious misspecification: treating exogenous variables as endogenous, or treating endogenous variables as exogenous? Explain your answer.

35. Briefly explain any difference you perceive between the characteristics of macroeconomic and financial data. Which of these features suggest the use of different econometric tools for each class of data?

36. (A) Explain what stylized shapes would be expected for the autocorrelation and partial autocorrelation functions for the following stochastic processes:

- white noise
- an AR(2)
- an MA(1)
- an ARMA (2,1)

(B) Consider the following ARMA process. $Y_t = 0.21 + 1.32Y_{t-1} + 0.58U_{t-1} + U_t$
Determine whether the MA part of the process is invertible.

(C) What procedure might be used to estimate the parameters of an ARMA model? Explain, briefly, how such a procedure operates, and why OLS is not appropriate.

(3 x 4 = 12 weightag

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Fourth Semester MA Degree Examination, March/April 2020
MECO4B14 – Financial Economics
(2018 Admission onwards)

Time: 3 hours

Max. Weightage : 36

Part-A**Answer all questions****Each bunch of four questions carries a weightage of 1****A. Multiple Choice**

1. An Option that gives the right to sell is called:
(a) Put option (b) call option (c) European option (d) swap
2. Which shows the financial position of a firm at a given point of time:
(a) Loss account (b) balance sheet (c) debt position (d) none of these
3. The key advantage of the financial intermediaries are:
(a) Diversification (b) low transaction cost (c) economies of scale (d) all the above
4. Who develop CAPM model:
(a) Markowitz (b) Bernoulli (c) Gossen (d) Marshall

B. Multiple Choice

5. It is used for developing probability profile of a criterion of merit by randomly combining values of variables that bear on the chosen criteria.
(a) Scenario analysis (b) sensitivity analysis
(c) simulation analysis (d) break even analysis
6. Which option that gives the right to buy:
(a) Put option (b) call option (c) American option (d) none of these
7. Which is the sum of the present values of all the cash flows of the project:
(a) IRR (b) ARR (c) BCR (d) NPV
8. Which is the length of time required to recover the initial outlay on the project:
(a) Payback period (b) accounting rate of return
(c) profitability index (d) break-even analysis

C. Fill in the blanks

9. ----- is a useful tool for analyzing sequential decisions in the face of risk.
10. ----- it represents that portion of its risk which is attributable to economy-wide factors like the growth rate of GNP, the level of government spending, money supply, interest rate structure and inflation rate.

11. ----- is the growth rate that can be sustained with the help of retained earnings matched with debt financing, in line with the debt equity policy of the firm.
12. ----- such as bonds and stocks represent claims against the future income and wealth of others.

D. State whether the following statements are true or false

13. The process of investing money as well as reinvesting the interest earned thereon is called discounting.
14. Turnover refers to the efficiency of asset use.
15. According to DuPont analysis, return on equity is expressed as a product of net profit margin, total asset turnover and asset equity ratio.
16. The intrinsic value of any asset is equal to the present value of the cash flow expected from it.

(16x ¼ = 4 weightage)

Part B

Answer any 10 questions

Each question carries weightage of 2

17. Briefly explain the different financial ratios.
18. Explain the relationship between coupon rate, required yield and price.
19. How to equity valuation through the P/E ratio approach.
20. Explain the relationship between risk and return.
21. Explain in detail of the Black-Scholes model.
22. Describe the various asset accounts and liability accounts found on a company balance sheet.
23. What is the present value of the following cash stream if the discount rate is 10 percent?

Year	0	1	2	3	4
Cash flow	5000	6000	8000	9000	8000

24. What is efficient market hypothesis?
25. Discuss the basic bond valuation.
26. What is the effect of change in risk aversion on the security market line?
27. Discuss the key determinants of the value of a call option.
28. What is the present value of 8 lakh receivable 50 years from now, if the discount rate is 9 percent?
29. Explain the various factors influencing allocating resources overtime.

(10 x 2 = 20 weightage)

Part B

Answer any 3 questions

Each question carries a weightage of 4

30. Explain the risk and return of a portfolio.
31. Briefly explain the procedure of Compounding and Discounting.
32. Explain CAPM model.
33. Distinguish between Forward and future contracts. How options work?
34. Briefly explain the structure of the financial system in detail.

(3 x 4 = 12 weightage)

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Fourth Semester MA Degree Examination, March/April 2020
MECO4B13 – International Finance
(2018 Admission onwards)

Time: 3 hours

Max. Weightage : 36

Answer all questions. Each bunch of four questions carries one weightage

A. Multiple choice

- 1 Exchange rate is kept the same in all parts of the market by
a)Exchange arbitrage b)Interest arbitrage c)Hedging d)Speculation
- 2 Purchasing power parity theory was given by
a)Haberler b)J.S. Mill c)J.E. Meade d)Gustav Cassell
- 3 Which of the following countries is a member of the ASEAN Group?
a)China b)India c)Sri Lanka d)Thailand
- 4 Foreign aid is included in which account of balance of payment
a)Current account b)Capital account c)Visible account d)Official account
- 5 Under flexible exchange rate system, exchange rates are determined by
a)Individuals b)Monetary authority c)Market forces d)None of the above
- 6 Euro Dollars denote
a)Dollar deposits in Europe b)Euro deposits in US
c)Dollar deposits outside US d)Euro deposits outside US
- 7 European Community officially began its working on
a)January 1 1951 b)January 1 1958
c)January 1 1991 d)January 1 1990
- 8 Indian Rupee is convertible in
a)Current account only b)Capital account only
c)Current and capital account d)None of the above

B. Fill in the blanks

- 9 Jamaica Accords was ratified in the year -----
- 10 Acceptance of foreign exchange risk is -----
- 11 ----- popularised Purchasing power parity theory
- 12 Most popular forward foreign exchange contract is of ---- days

C. State True or False

- 13 Borrowing is treated as debit item in balance of payment
- 14 London is the world's largest foreign exchange market
- 15 Options are special type of spot exchange market
- 16 IMF was established to supervise exchange rate system

(16 x ¼ = 4 weightage)

II. Answer Any ten questions. Not exceeding one page each

- 17 Explain the Euro currency market
- 18 Define hedging
- 19 Distinguish between NEER and REER
- 20 Explain the role of IDA
- 21 Elaborate law of one price
- 22 What is meant by dirty float?
- 23 Discuss the foreign trade multiplier
- 24 What is interest arbitrage?
- 25 Explain foreign exchange futures
- 26 Define exchange rate overshooting
- 27 Explain optimum currency area
- 28 Explain Special Drawing Rights
- 29 Briefly explain asset market model
- 30 Explain Marshall Learner condition

(10 x 2 = 20 weightage)

III. Answer Any three questions. Not exceeding three pages each

- 31 What are the reasons for the collapse of Brettonwood system
- 32 Examine the elasticity approach of balance of payment
- 33 Critically examine purchasing power parity theory
- 34 Elaborate Mundell Fleming Model
- 35 Discuss the merits and demerits of flexible exchange rate.

(3 x 4 = 12weightage)